



SEQUENCE LISTING

#14
RECEIVED

APR 23 2001

TECH CENTER 1600/2900

<110> Gruber, Veronique
Bournat, Philippe
Merot, Bertrand

<120> Pancreatic Lipases and/or Recombinant Colipases and Derived
Polypeptides Produced by Plants, Methods for Obtaining Them and Use
Thereof

<130> Seq. Nos. 1-16 for 1149-2

<140> 09/284,697

<141> 1999-07-06

<150> PCT/FR97/01862

<151> 1997-10-17

<160> 16

<170> PatentIn version 3.0

<210> 1

<211> 69

<212> DNA

<213> Artificial Sequence

<220>

<223> Nucleotide sequence encoding a signal peptide of Sporamine A of sweet
potato

<220>

<221> misc_feature

<222> (1)..(69)

<223> Nucleotide sequence encoding a signal peptide of Sporamine A of sweet
potato

<220>

<221> CDS

<222> (1)..(69)

<300>

<301> Lowe, M.E. et al.

<302> Cloning and Characterization of Human Pancreatic Lipase cDNA

<303> Journal of Biological Chemistry

<304> 264

<305> 33

<306> 20042-20048

<307> 1989-11-25

<400> 1

atg aaa gcc ttc aca ctc got ctc ttc tta gct ctt tcc ctc tat ctc

Met Lys Ala Phe Thr Leu Ala Leu Phe Leu Ala Leu Ser Leu Tyr Leu
 1 5 10 15

ctg ccc aat cca gcc cat tcc
 69

Leu Pro Asn Pro Ala His Ser
 20

<210> 2
 <211> 23
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Signal peptide of Sporamine A of sweet potato

<400> 2

Met Lys Ala Phe Thr Leu Ala Leu Phe Leu Ala Leu Ser Leu Tyr Leu
 1 5 10 15

Leu Pro Asn Pro Ala His Ser
 20

<210> 3
 <211> 111
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Nucleotide sequence encoding a signal peptide of PPS of Sporamine A of sweet potato

<220>
 <221> sig_peptide
 <222> (1)..(111)
 <223> Nucleotide Sequence Encoding a signal peptide PPS of Sporamine A of sweet potato

<220>
 <221> CDS
 <222> (1)..(111)

<300>
 <301> Lowe, M.E., et al.
 <302> Cloning and Characterization of Human Pancreatic Lipase cDNA
 <303> Journal of Biological Chemistry
 <304> 264
 <305> 33
 <306> 20042-20048
 <307> 1989-11-25

<400> 3

atg aaa gcc ttc aca ctc gct ctc ttc tta gct ctt tcc ctc tat ctc
48

Met Lys Ala Phe Thr Leu Ala Leu Phe Leu Ala Leu Ser Leu Tyr Leu
1 5 10 15

ctg ccc aat cca gcc cat tcc agg ttc aat ccc atc cgc ctc ccc acc
96

Leu Pro Asn Pro Ala His Ser Arg Phe Asn Pro Ile Arg Leu Pro Thr
20 25 30

aca cac gaa ccc gcc
111

Thr His Glu Pro Ala
35

<210> 4

<211> 37

<212> PRT

<213> Artificial Sequence

<220>

<223> Signal peptide of PPS of Sporamine A of sweet potato

<400> 4

Met Lys Ala Phe Thr Leu Ala Leu Phe Leu Ala Leu Ser Leu Tyr Leu
1 5 10 15

Leu Pro Asn Pro Ala His Ser Arg Phe Asn Pro Ile Arg Leu Pro Thr
20 25 30

Thr His Glu Pro Ala
35

<210> 5

<211> 66

<212> DNA

<213> Artificial Sequence

<220>

<223> Nucleotide sequence encoding a signal peptide of rabbit gastric lipase

<220>

<221> sig_peptide

<222> (1)..(66)

<223> Nucleotide sequence encoding a signal peptide of rabbit gastric lipase

<220>

<221> CDS

<222> (1)..(66)

<400> 5

atg tgg gtg ctt ttc atg gtg gca gct ttg cta tct gca ctt gga act
48

Met Trp Val Leu Phe Met Val Ala Ala Leu Leu Ser Ala Leu Gly Thr
1 5 10 15

aca cat ggt ctt ttt gga
66

Thr His Gly Leu Phe Gly
20

<210> 6

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> Signal peptide of Rabbit Gastric Lipase

<400> 6

Met Trp Val Leu Phe Met Val Ala Ala Leu Leu Ser Ala Leu Gly Thr
1 5 10 15

Thr His Gly Leu Phe Gly
20

<210> 7

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Nucleotide sequence encoding a signal peptide of PSHPL

<220>

<221> sig_peptide

<222> (1)..(48)

<223> Nucleotide sequence encoding a signal peptide of PSHPL

<220>

<221> CDS

<222> (1)..(48)

<223> The cleavage sequence between two sequences coding for PSHPL and HPL
is Gly-Lys

<400> 7

atg ctg cca ctt tgg act ctt tca ctg ctg ctg gga gca gta gca gga
48

Met Leu Pro Leu Trp Thr Leu Ser Leu Leu Leu Gly Ala Val Ala Gly
1 5 10 15

<210> 8
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Signal peptide of PSHPL

<400> 8

Met Leu Pro Leu Trp Thr Leu Ser Leu Leu Leu Gly Ala Val Ala Gly
1 5 10 15

<210> 9
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> Nucleotide sequence encoding a signal peptide of HPCOL

<220>
<221> sig_peptide
<222> (1)..(66)
<223> Nucleotide sequence encoding a signal peptide of HPCOL

<220>
<221> CDS
<222> (1)..(66)

<400> 9

atg tgg gtg ctt ttc atg gtg gca gct ttg cta tct gca ctt gga act
48

Met Trp Val Leu Phe Met Val Ala Ala Leu Leu Ser Ala Leu Gly Thr
1 5 10 15

aca cat ggt ctt ttt gga
66

Thr His Gly Leu Phe Gly
20

<210> 10
<211> 22
<212> PRT
<213> Artificial Sequence

<220>

<223> Signal peptide of HPCOL

<400> 10

Met Trp Val Leu Phe Met Val Ala Ala Leu Leu Ser Ala Leu Gly Thr
1 5 10 15

Thr His Gly Leu Phe Gly
20

<210> 11

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> Nucleotide sequence encoding a signal peptide of PSHPCOL

<220>

<221> sig_peptide

<222> (1)..(51)

<223> Nucleotide sequence encoding a signal peptide of PSHPCOL

<220>

<221> CDS

<222> (1)..(51)

<223> The cleavage sequence between the two sequences coding for PSHPCOL and HPCOL is Ala-Lys

<400> 11

atg gag aag atc ctg atc ctc ctg ctt gtc gcc ctc tct gtg gcc tat
48

Met Glu Lys Ile Leu Ile Leu Leu Leu Val Ala Leu Ser Val Ala Tyr
1 5 10 15

gca
51

Ala

<210> 12

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Signal peptide of PSHPCOL

<400> 12

Met Glu Lys Ile Leu Ile Leu Leu Leu Val Ala Leu Ser Val Ala Tyr
1 5 10 15

Ala

<210> 13
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligodeoxynucleotide

<220>
<221> misc_feature
<222> (1)..(32)
<223> Oligodeoxynucleotide used to construct the adapter carrying
restriction sites PacI, Ascl, MluI and HpaI

<400> 13

agctgattaa ttaaggcgcg ccacgcgtta ac
32

<210> 14
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligodeoxynucleotide

<220>
<221> misc_feature
<222> (1)..(32)
<223> Oligodeoxynucleotide used to construct the adapter carrying the
restriction sites PacI, Ascl, MluI and HpaI

<400> 14

aattgttaac gcgtggcgcg ccttaattaa tc
32

<210> 15
<211> 523
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)..(523)
<223> Nucleic sequence from human pancreatic colipase

<400> 15

acaccagctg tccactcac catggagaag atcctgatcc tctgcttgt cgcctctct 60
gtggcctatg cagctcctgg cccccggggg atcattatca acctggagaa cggtagctc 120

tgcatgaata gtgccagtg taagagcaat tgctgccagc attcaagtgc gctgggcctg	180
gcccgtgca catccatggc cagcgagaac agcgagtgt ctgtcaagac gctctatggg	240
atttactaca agtgtccctg tgagcgtggc ctgacctgtg agggagacaa gaccatcgtg	300
ggctccatca ccaacaccaa ctttggcatc tgccatgacg ctggacgctc caagcagtga	360
gactgccac cactccac acctagcca gaatgctgta ggccactagg cgcaggggca	420
tctctcccct gctccagcgc atctccggg ctggccacct ccttgaccag catatctgtt	480
ttctgattgc gctcttcaca attaaaggcc tctgcaaac ctt	523

<210> 16

<211> 1471

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(1471)

<223> Nucleic acid sequence from human pancreatic lipase

<400> 16

ggaactgcc c gatgctgcc actttggact ctttactgc tgctgggagc agtagcagga	60
aaagaagttt gctacgaaag actcggctgc ttcagtgatg actcccatg gtcaggaatt	120
acggaaagac cctccatat attgccttgg tctccaaaag atgtcaacac ccgcttcctc	180
ctatatacta atgagaacct aaacaacttt caagaagttg ccgcagattc atcaagcatc	240
agtggctcca atttcaaac aaatagaaaa actcgcttta ttattcatgg attcatagac	300
aagggagaag aaaactggct ggccaatgtg tgcaagaatc tgttcaaggt ggaaagtgtg	360
aactgtatct gtgtggactg gaaaggtggc tccgaactg gatacacaca agcctgcag	420
aacatcagga tcgtgggagc agaagtggca tttttgttg aatttcttca gtcggcgctc	480
ggttactcac cttccaacgt gcatgtcatt ggccacagcc tgggtgccca cgctgctggg	540
gaggctggaa ggagaaccaa tgggaccatt ggacgcacatc cagggttga cccagcagaa	600
ccttgctttc agggcacacc tgaattagtc cgattggacc ccagcgatgc caaatttgtg	660
gatgtaatto acacggatgg tgccccata gtcccaatt tggggtttgg aatgagccaa	720
gtcgtgggcc acctagattt ctttccaaat ggaggagtgg aaatgcctgg atgtaaaaag	780
aacattctct ctcagattgt ggacatagac ggaatctggg aagggactcg agactttgog	840
gcctgtaatc acttaagaag ctacaaatat tacactgata gcatcgtcaa cctgatggc	900

tttgetggat tccccgtgac ctcttacaac gtcttcaactg caaacaagtg tttcccttgt	960
ccaagtggag gctgccacac gatgggtcac tatgtgata gatatactgg gaaaacaaat	1020
gatgtgggac agaaatttta tctagacact ggtgatgcca gtaattttgc acgttggagg	1080
tataaggtat ctgtcacact gtctggaaaa aaggttacag gacacatact agtttctttg	1140
ttcggaaata aaggaaactc taagcagtat gaaattttca agggcactct caaaccagat	1200
agtactcatt ccaatgaatt tgactcagat gtggatgttg gggacttgca gatgggttaa	1260
tttatttggt ataacaatgt gatcaacca actttaccta gaggggagc atccaagatt	1320
atagtggaga caaatgttgg aaaacagttc aacttctgta gtccagaaac cgtcaggag	1380
gaagttctgc tcacctcac accgtgttag gagactactg ttatttgacc aatgaattga	1440
cttctaataa aatctagtgg tgatgcaaaa a	1471